

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES
MISSOURI CLEAN WATER COMMISSION



MISSOURI STATE OPERATING PERMIT

GENERAL PERMIT

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

MO-R409000

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

FACILITY DESCRIPTION

Shallow Injection

All Outfalls - In place soil remediation or bioremediation of petroleum contaminated soil and subsoil around storage tanks through injection of materials into strata, which are not aquifers. The limits on page 2 of 5 apply to any water withdrawn from the site and discharged to the waters of the state.

This permit authorizes only wastewater, including storm waters, discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 644.051.6 of the Law.

December 10, 2004

Effective Date

December 9, 2009

Expiration Date
MO 780-0041 (10-93)

Stephen M. Mahford, Director, Department of Natural Resources
Executive Secretary, Clean Water Commission

Jim Hull, Director of Staff, Clean Water Commission

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS					PAGE NUMBER 2 of 5	
					PERMIT NUMBER MO-R409000	
The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>All Outfalls</u> (Note 1)						
Flow	MGD	*		*	once/quarter**	24 hr. estimate
Benzene	mg/L	0.05		0.05	once/quarter**	grab
Toluene	mg/L	*		*	once/quarter**	grab
Ethylbenzene	mg/L	*		*	once/quarter**	grab
Xylene	mg/L	*		*	once/quarter**	grab
Total BETX***	mg/L	0.75		0.75	once/quarter**	grab
Oil and Grease	mg/L	15		10	once/quarter**	grab
Total Petroleum Hydrocarbons (TPH)	mg/L	10		10	once/quarter**	grab
Chemical Oxygen Demand	mg/L	120		90	once/quarter**	grab
Total Suspended Solids	mg/L	80		60	once/quarter**	grab
pH - Units	SU	****		****	once/quarter**	grab
Methyl Tertiary Butyl Ether (MTBE) (Note 2)	mg/L	0.020		0.020	once/quarter**	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>QUARTERLY</u> ; THE FIRST REPORT IS DUE <u>April 28, 2005</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
B. STANDARD CONDITIONS						
IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED <u>Part I</u> STANDARD CONDITIONS DATED <u>October 1, 1980</u> , AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.						

MO 780-0010 (8/91)

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

- * Monitoring requirement only.
- ** Sample once per quarter as soon as a discharge occurs.
- *** Total BETX shall be measured as the sum of Benzene, Ethylbenzene, Toluene, and xylene.
- **** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.0-9.0 pH units.

Note 1 - The water tested will be the final water disposed.

Note 2 - Use EPA method 8260A, not 8020/A/21B due to detection limit concerns.

APPLICABILITY

1. This permit allows the placement of remediation materials or chemicals, both inorganic and organic, as well as bacterial agents into the ground in order to enhance or speed the in situ remediation of petroleum contaminated soil and subsoil. This permit is to be used only for petroleum contaminated soils and subsoils. Other contaminants are not covered by this permit and applicants must apply for a site-specific permit. Soils contaminated to such an extent that they are considered hazardous in accordance with 40 CFR 261.24 are also ineligible for this permit.

2. This permit does not authorize injection into an aquifer, or allow the injected substances to reach an aquifer.

An aquifer is a subsurface water-bearing bed or stratum of sand, gravel or bedrock which stores or transmits water in recoverable quantities that is presently being utilized or could be utilized as a water source for private or public use. (10 CSR 20-2.010(7)). This water does not have to have any (potable) characteristics. Aquifer does not include "perched water" located above a claypan, hardpan, or other relatively impermeable soil layer that is underlaid by another unsaturated soil zone, or the vadose zone.

3. Potential applicants for this general permit are warned that any test hole or boring deeper than 10 feet may require a permit from the Division of Geology and Land Survey.

4. Facilities that are located within the watershed of the 303(d) listing of impaired waters will need to be evaluated, on a case-by-case basis, for inclusion under this general permit. Facilities that are found to be discharging the listed pollutant(s) of concern may be required to obtain a site-specific permit.

5. If at any time the permit holder should desire to apply for a site-specific State Operating permit, the owner may do so.

6. If at any time the Missouri Department of Natural Resources determines that the quality of the waters of the state are not being adequately protected, this permit will be revoked, the remediation system shall be dismantled and all contaminated soils shall be removed and disposed of in a manner accepted by the Missouri Department of Natural Resources.

7. This permit **does not apply** to discharges:

- (a) Within 1,000 feet of streams identified as a losing stream*,
- (b) Within 1,000 feet of streams or lakes listed as an outstanding national or state resource water*,
- (c) Within 1,000 feet of reservoirs or lakes used for public drinking water supplies (class L1)*,
- (d) Within 1,000 feet of streams, lakes, or reservoirs identified as critical for endangered species,
- (e) Within 500 feet of intermittent streams or wetlands*,
- (f) Within 100 feet of a permanent stream (class P)* or major reservoir (class L2)*,
- (g) Within two stream miles upstream of biocriteria reference locations*, or
- (h) Where discharge is to a sinkhole or other direct conduit to groundwater.

The stream or lake classifications denoted by * are identified or described in 10 CSR 20, Chapter 7. These regulations are available at many libraries and may be purchased from MDNR by contacting the Water Protection Program.

8. Facilities that discharge directly to a combined sewer system are exempt from permit requirements.

CONSTRUCTION PERMIT EXEMPTION

1. The permittee is exempted from obtaining a construction permit when the requirements of this permit are met.

APPLICATION REQUIREMENTS

1. A geological report, signed by a professional geologist or geological engineer, must accompany the application stating that injection is not to an aquifer and that the injected fluids will not reach an aquifer. This statement must be notarized or stamped with the seal of the geologist or geological engineer.
2. A site map and description of the treatment system must accompany the application.

OPERATION REQUIREMENTS

1. Fluids and chemicals that were injected into the subsurface must be removed to background or pre-injection levels to the extent practicable. This must be done using a final pumping or placing the chemicals in a "sock", which will be removed at the end of the project.
2. The treatment system must not be located within the 10-year floodplain of a classified stream if chemicals or bacterial agents are injected. The treatment system may be located within the 10-year floodplain if the only material injected is water.
3. The treatment system, including collection and recirculation piping, shall not be located within 25 vertical feet of an aquifer.
4. Collection or recirculation piping shall be removed when remediation is complete except for any monitoring well installations.
5. The treatment shall reduce the contamination levels to those acceptable by the Department and a final pumping and discharge meets the effluent limit and pumping records indicate that all fluids that are injected or allowed to infiltrate have been substantially removed.
6. Water Quality Standards
 - (a) Discharges to waters of the state shall not cause a violation of water quality standards rule under 10 CSR 20-7.031, including both specific and general criteria.
 - (b) General Criteria. The following general water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
 - (1) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
 - (2) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
 - (3) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
 - (4) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
 - (5) There shall be no significant human health hazard from incidental contact with the water;

6. Water Quality Standards (cont.)

- (6) There shall be no acute toxicity to livestock or wildlife watering;
- (7) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
- (8) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.

SAMPLING

Analysis of the injected fluids is not required. This permit requires quarterly sampling of all fluids extracted and discharged at the end of the project.

PERMIT TRANSFER

This permit may be transferred to a new permittee by submitting an "Application for Transfer of Operating Permit" signed by the transferor and transferee of the facility, along with the appropriate modification fee.

PERMIT RENEWAL REQUIREMENTS

Unless this permit is terminated, the permittee shall submit an application for the renewal of this permit no later than six (6) months prior to the permit's expiration date.

TERMINATION OF PERMIT

If activities covered by this permit have ceased and this permit no longer applies, the permittee shall request termination of this permit. The permittee shall submit Form H, Termination of a General Permit.

DUTY OF COMPLIANCE

The permittee shall comply with all conditions of this general permit. Any noncompliance with this general permit constitutes a violation of Chapter 644, Missouri Clean Water Law, and 10 CSR 20-6.200. Noncompliance may result in enforcement action, termination of this authorization, or denial of the permittee's request for renewal.

RECORDS RETENTION AND REPORTING

All sampling data shall be maintained by the permittee for a period of five (5) years and shall be supplied to the Department of Natural Resources upon written request (supersedes Part I. Section A: 7. Records Retention). A copy of all of the sampling data must be submitted with an application for reissuance of this permit.